OBITUARY.

WILLIAM WARREN, M.A.

Died October 18, 1914, aged 75.

FOR a number of years W. Warren had suffered from an internal complaint, which was now and again intensely painful, and compelled him at times to take a rest for a few days. But in spite of this intermittent illness he was wonderfully well, and, considering his advanced age, one could but admire the energy with which he still devoted himself to his work. Early in October last the trouble became acute, and after a week's struggle Warren had to give in and remain at home. During the intervals between the attacks of pain he was as cheerful as usual, and we all expected a speedy recovery. The doctor proposed an operation, which might bring relief, but at first the patient would not hear of it. However, when passing the house on Saturday, 17th, at noon, I saw Warren standing dressed at the open window of his room, and we talked together for some time about his illness and his affairs. He told me that he was going to the infirmary at Hemel Hempstead, where, if it was thought necessary, he would undergo an operation. He appeared pale, but was otherwise much the same as usual. Next morning a telegram from the infirmary announced his death. He had fainted in an attack of pain, and passed away without recovering conscionsness.

William Warren was born January 20, 1839, as the eldest son of the late Wm. Warren, J.P., of Cambridge. He was educated at Oakham School, which he left in 1857, entering the University of Cambridge in 1858. He took a great interest in cricket and boating, being a very good bowler and rowing in the Lady Somerset boat. But the pursuit of sport did not collide with his studies. He was a scholar, prizeman, and exhibitioner at St. John's College, and in 1861 took firstclass honours in classics. Choosing the scholastic career as his vocation, Warren, on leaving the University, accepted an appointment as master at Sedbergh School, becoming subsequently tutor to the present Lord Shuttleworth. From 1866 to 1877 he was second master at Doncaster Grammar School, and in 1880 went as master to Stubbington House School for army and navy cadets at Fareham, his application for a headmastership at some other school being unsuccessful.

The testimonials given to Warren—and which are before me—speak in very favourable terms of him as a teacher; private reasons, however, compelled him to give up the scholastic profession about 1882, since when he has devoted his time to his favourite pursuit of entomology.

A very keen and competent collector and an untiring walker, Warren was indefatigable in the field. He was the first to draw attention to the entomological treasures of the Fens, and his earlier publications consisted of notes on his discoveries in that district. The Microlepidoptera were his chief subject of study, and although he was in later years obliged to work almost exclusively at other groups of Lepidoptera, he preserved to his last days a tender love for the smallest of moths.

When he had relinquished his career as a schoolmaster, he remained without a regular salaried employment, living on the rather considerable fortune left him by his father. The inheritance, however, soon dwindled away, and the means of subsistence became more and more precarious. But his outlook on life was optimistic, and the frequent embarrassments in which he found himself up to the last five or six years of his life could not daunt his spirits; they were forgotten as soon as circumstances appeared to assume a brighter aspect. He was separated from his wife, but remained in communication with his only son to the end.

In 1888 Warren began work at the British Museum as an outside assistant, being engaged to arrange the Pyrals and Geometers. He published some papers on the former family in 1890, 1891, and 1892; but nearly all the names that he gave to the numerons new species of *Geometridae* contained in the British Museum collection remained unpublished for the time. Through the kind intermediation of Dr. Günther, Warren offered his services to Mr. Rothschild, and in 1892 came to Tring in order to name and arrange the *Geometridae* and a few other families, such as the *Drepanulidae*, *Thyrididae*, and *Uraniidae*. He lived at Tring for a couple of years, but subsequently removed to London. Although his principal work consisted in the naming of specimens in the Tring Museum and in describing the new genera and species found among our material, Warren was at liberty to assist other entomologists with his rapidly increasing knowledge of the families at which he was working, and many of the new exotic species published by others during the last twenty years had previously been submitted to him.

When Dr. Seitz asked me if I knew of some one who could undertake to describe the *Noctuidae* for his work, *Die Grossschmetterlinge der Erde*, I mentioned Warren, who at that time was living in London and had very little to do. The *Geometridae* having already been assigned by Dr. Seitz to a very competent specialist, Warren agreed to come to Tring and devote himself to the Noctuids, and from that time until his death he was happy in having continuous employment without being strictly bound to official hours.

The number of new species and genera published by Warren is very large, and he will remain known to posterity as the chief specialist in *Geometridae* of the last two decades. He was assisted in his work by a catalogue he had compiled, containing a description of each species and variety, and, if a specimen had been accessible to him, a carefully executed pencil-drawing. This enormous work, amounting to several cubic feet of manuscript, cannot be published for various reasons, but it will nevertheless remain accessible at the Tring Museum. Some manuscripts on British Microlepidoptera were also found among Warren's papers, but are antiquated by more recent discoveries, and must unfortunately remain unpublished. Several small manuscripts on new species were ready for publication, while some others require arranging and revising before they can go to press.

Although Warren was essentially an entomologist of the older school, he paid more careful attention to the structure of the wings, antennae, and legs, as far as these organs can be studied with an ordinary lens, than did (and do) some of his contemporaries, and for this reason his work will be more highly appreciated by the specialist than by the general collector.—K. JORDAN.

LIST OF PUBLICATIONS BY W. WARREN.

- Economy of the larva of Ephippiphora nigricostana.—Ent. Mo. Mag. xv. p. 15.
 - 2. Elachista stabilella bred.-L.c. xv. p. 16.
 - 3. Food-plant of *Elachista stabilella*.—L.c. xv. p. 69.
- 1879. 4. Bryophila glandifera (var. par?).-L.c. xvi. p. 110.
 - 5. Larva of Coleophora deauratella in Cambridgeshire.-L.c. xvi. p. 113.
- 1880. 6. Bryophila par.-L.c. xvii. p. 115.
 - 7. Addition of Bryophila par to the British Fauna.—Entom. xiii. pp. 225-226.
 - 8. Zelleria insignipennella bred.-Ent. Mo. Mag. xvi. p. 116.
 - 9. Captures of Lepidoptera in the vicinity of London.-L.c. xvi. p. 137.
- 1881. 10. Occurrence of Nepticula sericopeza near Cambridge.-L.c. xviii. p. 142.
- 1883. 11. On the probable identity of the species known as Agrotis tritici, aquilina, obelisca, and nigricans.—L.c. xix. p. 278.
 - 12. On the habits of the larva of Eupoecilia rupicola.-L.c. xx. p. 17.
 - On the hibernation as full-fed larvae of some species of Nepticula. L.c. xx, p. 17.
 - 14. The young larva of Coleophora lixella.-L.c. xx. p. 18.
 - 15. The larva of Plusia orichalcea.-L.c. xx. p. 116.
 - 16. Some further remarks on Nepticula.-L.c. xx. p. 186.
- 1884. 17. Bryophila impar, n. sp., distinct from B. glandifera.-L.c. xxi. p. 22.
- 1885. 18. Note on Dichrorhampha tanaceti.-L.c. xxi. p. 190.
 - 19. The Nepticulae of the Monntain Ash.-L.c. xxii. p. 131.
- 1886. 20. Gelechia rilella bred fifteen years ago.-L.c. xxii. p. 212.
 - 21. Some captures of Lepidoptera in 1885, with remarks.—L.c. xxii. p. 254.
 - 22. Queries concerning the habits of certain British Tortrices.—L.c. xxii. p. 279.
 - 23. Description of the larva of Gelechia vilella, Zell.-L.c. xxiii. p. 89.
- 1887. 24. Occurrence of Stigmonota pallifrontana, Z., in England.-L.c. xxiii. p. 232.
 - 25. The generic position of Grapholitha (?) caecana.-Entom. xx. p. 38-39.
 - Occurrence of another British example of *Euzophera oblitella*, Z.— L.c. xx, p. 233.
 - Occurrence of both Steganoptycha pygmacana, Hb., and S. abiegana, Dup., in England, and the latter species identified as the Tortrix subsequana of Haworth.—Ent. Mo. Mag. xxiv. p. 6-8.
 - 28. Halonota obscurana, Stph. (1834) versus ravulana, H.-S. (1849).-L.c. xxiv. p. 8.
 - 29. Description of the larva of Eupoceilia flaviciliana.-L.e. xxiv. p. 88-89.
 - Bescription of the larva of Stigmonota pallifrontana, Z.-L.c. xxiv. p. 89.
 - 31. On a species of the family *Gelechidue*, hitherto unrecognised in England.-L.c. xxiv. p. 104.
 - 32. Occurrence of Lozotaenia (Cacoecia, Hb.) decretana, Tr., in Norfolk.— L.c. xxiv. p. 125-126.
 - 33. Description of the larva of Eupoceilia degregana.-L.e. xxiv. p. 134.

- 34. Notes on the species of Heinemann's family CHAULIODIDAE that occur in England.—*Ent. Mo. Mag.* xxiv. p. 141-147.
- 1888. 35. Notes on the larva of Olindia ulmana, IIb.-L.c. xxiv. p. 230.
 - 36. On Lepidoptera collected by Major Yerbury in Western India, in 1886 and 1887.—*Proc. Zool. Soc. Lond.* p. 292-338.
 - 37. Concerning some of Haworth's types of British Micro-Lepidoptera.— Ent. Mo. Mag. xxv. p. 5-8.
 - 38. The habits of Opostega salaciella, Tr., etc.-L.c. xxv. p. 145-146.
 - 39. Retinia posticana, Zett., a new British Tortrix.-L.e. xxv. p. 146-147.
 - 40. Notes on the larva of Geleehia peliella, Tr.-L.c. xxv. p. 161.
- 1889. 41. On the habits, etc., of certain British Micro-Lepidoptera.—L.c. xxv. p. 171-175.
 - 42. A Rejoinder on Retinia posticana, Zett.-L.c. xxv. p. 196-199.
 - 43. Retinia posticana, Zett., bred.-L.c. xxv. p. 307.
 - 44. On the *Pyralidina* collected in 1874 and 1875 by Dr. J. W. H. Trail, in the Basin of the Amazons.—*Trans. Ent. Soc. Lond.* p. 227-295.
- 1890. 45. Descriptions of some new genera of Pyralidae.—Ann. Mag. N. H. (6) vi. p. 474-479.
 - Entomological papers in Continental periodicals.— Entom. xxiii. p. 316-318.
 - Some descriptions in Swinhoe, "The Moths of Burma,"—Trans. Ent. Soc. Lond. p. 292-293.
- 1891. 48. Descriptions of new genera and species of *Pyralidae* contained in the British Museum collection.—Ann. Mag. N. II. (6) vii. p. 423-437, 494-500, and viii. p. 61-70.
 - Notes on British Lepidoptera; extracted from Continental journals.— Entom. xxiv. p. 33-37.
 - 50. Synonymic notes; Pyralidae.-L.c. xxiv. p. 180-185.
- 1892. 51. Descriptions of new genera and species of *Pyralidae*, contained in the British Museum collection.—*Ann. Mag. N. II.* (6) ix. p. 172–179, 294–302, 389–397, 429–442.
- 1893. 52. On new genera and species of Moths of the family Geometridae from India, in the collection of H. J. Elwes.—Proc. Zool. Soc. Lond. p. 341-434, pl. 30-32.
- 1894. 53. New genera and species of Geometridae.-Nov. Zool. i. p. 366-466.
- 54. New species of Indian Geometridue.-L.c. i. p. 678-682.
- 1895. 55. New genera and species of *Pyralidae*, *Thyrididae*, and *Epiplemidae*.— Ann. Mag. N. II. (6) xvi. p. 460-477.
 - 56. New species and genera of Geometridae in the Tring Museum,-Nov. Zool. ii. p. 82-159.
- 1896. 57. New genera and species of *Pyralidae*, *Thyrididae*, and *Epiplemidae*.— Ann. Mag. N. H. (6) xvii, p. 94-106, 131-150, 202-216.
 - 58. New species of *Pyralidue* from the Khasia Hills.—*L.c.* xvii. p. 452-466, and viii. p. 107-119, 163-177, 214-231.
 - 59. New Geometridae in the Tring Museum .- Nov. Zool. iii. p. 99-148.
 - New species of Drepanulidae, Uraniidae, Epiplemidae, and Geometridae from the Papuan region, collected by Mr. Albert S. Meek.—L.e. iii. p. 272-306.
 - 61. New Indian Epiplemidae and Geometridae,-L.c, iii. p. 307-321.

- 62. New species of *Drepanulidae*, *Thyrididae*, *Uraniidae*, *Epiplemidae*, and *Geometridae* in the Tring Museum.—Nov. Zool. iii, p. 335-419.
- 1897. 63. New genera and species of moths from the Old-World regions in the Tring Mnseum.-L.c. iv. p. 12-130.
 - 64. New genera and species of *Drepanulidae*, *Thyrididae*, *Epiplemidae*, *Uraniidae*, and *Geometridae* in the Tring Museum.—*L.e.* iv. p. 195-262, pl. 5.
 - 65. New genera and species of moths from the Old-World region, in the Tring Mnseum.-L.c. iv. p. 378-402.
 - 66. New genera and species of *Thyrididae*, *Epiplemidae*, and *Geometridae* from Sonth and Central America and the West Indies, in the Tring Museum,-L.c. iv. p. 408-507.
- 1898. 67. New species and genera of the families Thyrididae, Uraniidae, Epiplemidae, and Geometridae from the Old-World regions.— L.e. v. p. 5-41.
 - New species and genera of the families Drepanulidae, Thyrididae, Uraniidae, Epiplemidae, and Geometridae from the Old-World regions.—L.c. v. p. 221-258.
 - 69. List of the Geometridae, Epiplemidae, Drepanulidae, and Thyrididae collected on the Key Islands by Mr. H. Kühn.-L.c. v. p. 421-432.
- 1809. 70. New species and genera of the families Drepanulidae, Thyrididae, Uraniidae, Epiplemidae, and Geometridae from the Old-World regions.—L.c. vi. p. 1-66.
 - New Drepanulidae, Thyrididae, and Geometridae from the Aethiopian region,-L.e. vi. p. 287-312.
 - 72. New Drepanulidae, Thyrididae, Epiplemidae, Uraniidae, and Geometridae from the Oriental and Palaearctic regions.—L.c. vi. p. 313-358.
- 1900. 73. New genera and species of *Thyrididae* and *Geometridae* from Africa.— L.c. vii, p. 90-98.
 - 74. New genera and species of Drepanulidae, Thyrididae, Epiplemidae and Geometridae from the Indo-Australian and Palaearetic regions. -L.e. vii, p. 98-116.
 - 75. New genera and species of American Drepanulidae, Thyrididae, Epiplemidae, and Geometridae.—L.c. vii. p. 118-225.
- 1901. 76. New Thyrididae, Epiplemidae, and Geometridae from the Acthiopian region.-L.e. viii. p. 6-20.
 - 77. New Uraniidae, Epiplemidae, and Geometridae from the Oriental and Palaearctic regions.-L.e. viii. p. 21-37.
 - Drepanulidae, Uraniidae, and Geometridae from the Palaearctic and Indo-Anstralian regions.—L.c. viii, p. 190-201.
 - 79. Drepanulidae, Thyrididae, Epiplemidae, and Geometridae from the Aethiopian region.—L.e. viii. p. 202-217.
 - 80. New American moths.—L.e. viii, p. 435-492.
- 1902. 81. Drepanulidae, Thyrididae, Uraniidae, and Geometridae from the Oriental region.-L.e. ix. p. 340-372.
 - 82. New African Drepanulidae, Thyrididae, Epiplemidae, and Geometridae in the Tring Museum.-L.c. ix. p. 487-536.
- 1903. 83. New moths from British New Gainea.-L.c. x. p. 120-126.

- 84. New Drepanulidae, Thyrididue, Uraniidae, and Geometridae from the Oriental region.-Nov. Zool. x. p. 255-270.
- New African Thyrididae and Geometridae in the Tring Museum.— L.c. x. p. 271-278.
- New Uraniidae, Drepanulidae, and Geometridae from British New Gninea.-L.c. x. p. 343-414.
- 87. Two new species of *Lepidoptera* from the Wady-el-Natron, Egypt.-*Entom.* xxxvi. p. 225, 226, pl. 4 (in collab. with N. C. Rothschild).
- 1904. 88. New American Thyrididae, Uraniidae, and Geometridae.—Nov. Zool. xi. p. 1-173.
 - 89. New Drepanulidae, Thyrididae, Uraniidae, and Geometridae from the Aethiopian region.-L.c. xi. p. 461-482.
 - New Thyrididae and Geometridae from the Oriental regions.—L.c. xi. p. 483-492.
 - 91. New American Thyrididae, Uraniidae, and Geometridae.-L.c. xi. p. 493-582.
- 1905. 92. Some new South American moths.—Proc. U.S. Nation. Mus. xxix. p. 347-352.
 - 93. New species of *Thyrididae*, Uraniidae, and *Geometridae* from the Oriental region.—Nov. Zool. xii, p. 6-15.
 - 94. New species of Geometridue from the Aethiopian region.—L.c. xii. p. 34-40.
 - New Thyrididae, Uraniidae, and Geometridae from Sonth and Central America.-L.c. xii. p. 41-72.
 - 96. New American Thyrididae, Uraniidae, and Geometridae.-L.c. xii. p. 307-379.
 - 97. New African Thyrididae, Uraniidae, and Geometridae.-L.c. xii. p. 380-409.
 - 98. New species of *Thyrididae*, *Uraniidac*, and *Geometridae* from the Oriental region.—L.c. xii. p. 410-438.
 - Lepidoptera collected by Mr. W. R. Ogilvie-Grant on the Azores and Madeira in 1903.—L.c. xii. p. 439-447.
 - 100. Lepidoptera from the Sudan.—L.c. xii. p. 21-23, pl. 4 (in collab. with N. C. Rothschild).
- 1906. 101. Descriptions of new genera and species of Sonth American Geometrid moths.—*Proc. U.S. Nation. Mus.* xxx, p. 399-557.
 - 102. New Drepanulidae, Thyrididae, Uraniidae, and Geometridae from British New Gninea.—Nor. Zool. xiii. p. 61-160.
- 1907. 103. New Drepanulidae, Thyrididae, Uraniidae and Geometridae from British New Gninea.—L.c. xiv. p. 97-186.
 - 104. American Thyrididae, Uraniidae and Geometridae in the Tring Mnseum.— L.c. xiv. p. 187-323.
- 1908. 105. New Thyrididae in the Tring Museum.-L.c. xv. p. 325-351.
 - 106. Descriptions of new species of South American Geometrid moths.— Proc. U.S. Nation. Mus. xxxiv. p. 91-110.
- 1909. 107. New American Uraniidae and Geometridae in the Tring Museum.-Nov. Zool. xvi. p. 69-109.
 - 108. New species of Uraniidae and Geometridae from the Aethiopian region.— L.c. xvi. p. 110-122.

NO ITATES TO LEGUA XXII, 1915.

- f is f Thur ℓ , friend and Geometridae from the Oriental $(\ell + N + Znl, sy)$, p. 123-128.
- A true u Ser 7, Merel pideptere f the World in.
- 1. V tai portinuation in Seitz, Ma volepi loptica of the World iii.
- - 11. Vertaidae (continuation) in Seitz, Macrole pidoptera of the World iii.
 - Descriptions of some new Northidae in the Tring Mushum, --Nor. Zool. xviii 1, 140-148.
- 1912 115. Noctuidas in Seitz, Macrolepideptera of the World, xi.
 - 116, Cymatophoridae, ibid. ii.
 - 117. Nocturdae (continuation) ib'l. ii.
 - 118. New Northedre in the Fring Museum and y from the Indo-Oriental region. Noc. Z xix, 1, 1,
 - New Geon ridge in the Tring Museum from New Guinga.—L.c. xix, p. 65-53.
- 1 + 3. 120. Noctuidae (continuation) in Satz. Marrol piloptera of the World iii.
 - 121. Nucl The continuation), ibid. xi.
- 1 4 122. N w species of *Evid* i in the Tring Muslum, --Nov. Zool. xxi, p. 276 - 0.
 - 123 Descriptions of new species of Lepidopt rank terms in the South African Mussim $= 1ar_{*} \times Afr Mis \propto 0.467-510$, pl. 40–41.
 - 1.4. A ct (out is the new St. Juenic / World xi.
 - 125. New species of the product of the Vertician and the tridge in the Tring Marcum, Vie. Zool. xxi, p. 101-425.
- 1915. 126. New P hearctic and Eastern Noct idar in the Fring Museum, Nev. Zool. xxii, p. 147-153.
 - 127. Some New Oriental Cometopho udae in the Tring Museum,—L.e. xxii, p. 154-159.

In press : 12%. Drepanulidie, in S itz, Macrolopidopt coof the World's.

1